

Amendment to the Claims

Claim 1 (Previously presented): A method of producing an immunogenic composition comprising
transforming a plant with a nucleic acid construct that expresses a recombinant mammalian viral
immunogen in a plant,
selecting those plants expressing said recombinant viral immunogen at a level such that upon oral
administration of a composition comprising a plant-expressed recombinant viral
immunogen to an animal, an immunogenic response to said viral immunogen is elicited
so that the animal is protected against viral challenge, and
producing from said plants said immunogenic composition.

Claim 2 (Original): The method of claim 1, wherein said immunogen is capable of generating
an immunogenic response when the immunogen interacts with a mucosal membrane.

Claim 3 (Original): The method of claim 1, wherein said immunogen is from a transmissible
gastroenteritis virus.

Claim 4 (Previously presented): The method of claim 1 further comprising:
selecting edible plant tissue expressing said immunogen at a level such that a composition
comprising said immunogen induces an immunogenic response upon administration to an
animal, wherein said level of immunogen correlates with expression levels of said immunogen in
said tissue.

Claim 5 (Original): The method of claim 1, wherein said plant is a dicotyledonous plant.

Claim 6 (Previously presented): The method of claim 1 further comprising the step of:
introducing into said plant a nucleotide sequence designed for expression of said immunogen
comprising one of more of the following features:

- a promoter sequence which preferentially targets expression to edible tissues of a plant;
- a 5' untranslated leader sequence; and
- an enhancer sequence.

Claim 7 (Original): The method of claim 1 wherein said plant is a monocot plant.

Claim 8 (Previously presented): A method of producing an immunogenic composition
comprising:

introducing into a plant a nucleic acid construct which causes expression of a recombinant
mammalian viral immunogen preferentially in the edible tissues of said plant, and
selecting those plants with expression in said tissue at a level such that upon oral administration
of said tissue to an animal, an immunogenic response to said viral immunogen is
observed to protect said animal against a viral challenge, thereby forming said
immunogenic composition.

Claim 9 (Previously presented): A method of producing an immunogenic composition
comprising obtaining a nucleic acid construct, said construct comprising:

a nucleotide sequence which encodes a recombinant mammalian viral immunogen and one or more of the following:

a promoter sequence which preferentially targets expression to edible tissues of a plant;

a 5' untranslated leader sequence;

an enhancer sequence;

transforming a plant cell with said sequence so that expression of the recombinant viral

immunogen is at a level such that upon oral administration of the plant an immunogenic

response to said immunogen is observed to protect against a viral challenge, and

collecting plants with said expression level to form said immunogenic composition.

Claim 10 (Previously presented): The method of claim 1, wherein said plant is a plant edible by an animal.

Claims 11-16 (Canceled).